

REMARKS

Claims 1-11 are pending in the application. The Examiner has objected to the drawings; rejected Claim 1 under 35 USC 112; rejected Claim 1 as unpatentable over the combined teachings of the AAPA and Nakamura; rejected Claim 2 as unpatentable over AAPA in view of Nakamura and Buzak; rejected Claims 3-7 as unpatentable over the AAPA in view of Nakamura, Buzak and Baldi; and, rejected Claims 8-11 as unpatentable over the AAPA in view of Nakamura, Buzak, Baldi and Tanaka.

REQUEST FOR WITHDRAWAL OF FINAL STATUS

Applicants respectfully reiterate the request for withdrawal of the FINAL status of the Office Action dated September 25, 2001 and request a refund of the filing fee of the CPA which was filed on February 25, 2002. Applicants support the request with the following statements:

- that arguments submitted in the July 9, 2001 Amendment were accepted by the Examiner;

- that the Examiner changed the grounds for rejection of all of the pending claims in response to the July 9, 2001 Amendment;
- and

- that no amendments made to the claim language necessitated the change in the grounds for rejection.

Accordingly, Applicants respectfully submit that the appropriate course of action for the Examiner was the issuance of a non-final Office Action.

In the March 7, 2001 Office Action, the Examiner had rejected Claims 1 and 2 under 35 USC § 102(b) as anticipated by the teachings of the Nakamura patent (U.S. Patent No. 5,818,403), and had rejected Claims 3-11 as unpatentable over the combined teachings of Nakamura and the Baldi patent (U.S. Patent No. 5,708,451). Applicants submitted arguments which convinced the Examiner that all of the rejections be withdrawn and that new rejections be set forth. In the September 25, 2001 Office Action, the Examiner rejected Claims 1-11 as unpatentable over the teachings of the Nakamura patent, without citation of the Baldi patent or of any additional reference. Furthermore, the Examiner resurrected a rejection of Claims 1-11 as unpatentable over the teachings of the Suzuki reference, a rejection which the Examiner had withdrawn earlier in the prosecution of this application (see: the Office Action of May 9, 2000 in which the Suzuki reference is cited against the claims, the Amendment dated September 8, 2000 in which Applicants refute the applicability of the Suzuki reference, and the Office Action dated November 2, 2000 in which the Examiner drops the Suzuki rejection). Applicants respectfully assert that the Examiner should not penalize the Applicants with a Final Office Action when the previous grounds for rejection were withdrawn and new rejections

are raised. Accordingly, Applicants respectfully request that the Final status of the Office Action be withdrawn. Applicants additionally request that, upon withdrawal of the Final status, the filing fee for the filing of the CPA be refunded to Applicants deposit account.

RESPONSE TO REJECTIONS

With regard to the presently-pending Office Action, dated April 24, 2002, Applicants note that the Examiner has again changed the grounds for rejection. This time, the Examiner isn't citing the Suzuki patent at all. Due to the fact that the Suzuki patent has been cited in two, non-successive Office Actions, yet is not cited in the present Office Action, Applicants conclude that the withdrawal based on the Suzuki patent has been withdrawn. Confirmation or comment on the foregoing is respectfully requested.

In response to the objection to the drawings, Applicants submit herewith proposed drawing corrections labeling FIG. 1, 2, and 3 as PRIOR ART. Upon receipt of acknowledgment that the proposed drawings corrections have been accepted, Applicants will supply formal drawings.

The Examiner has raised a 112 rejection to Claim 1 for the first time in the three and one-half year prosecution of the patent application. The examiner seems to indicate that the

claimed means for providing cut-off correction information is not supported by the Specification. Applicants point to the teachings found at page 5, line 7 through page 6, line 8; on page 6, from lines 16-23; from page 9, line 31 through page 10, line 27 with reference to FIG. 4; page 14, lines 27, et seq., page 17, lines 20-25; page 18, lines 10-17; page 21, lines 3-31. Clearly the teachings of the Specification enable one skilled in the art to practice the invention as claimed. Applicants also point to the fact that one having skill in the art, and familiar with the technology, would fully understand what the cited teachings convey. Cut-off correction information (though not at the pixel level) was the subject of the Nonomura reference which was disclosed on page 4 of the patent application, and would clearly be understood given the background and the detailed teachings of the present specification.

In response to the rejections under 35 USC 103, Applicants reiterate that the Nakamura patent neither teaches nor suggests the invention as claimed, alone or in combination with the other cited art. For the first time, the Examiner is citing the AAPA against the claim language. Applicants acknowledge that the AAPA teaches a magnetic matrix display. However, such teachings, even in combination with Nakamura, etc. do not lead one to the present invention. The Nakamura patent teaches a driving method for an electron beam generation system with image forming apparatus associated therewith. The Nakamura method comprises alternately

applying information signals to odd-numbered columns of electrodes while applying cut-off signals to the even-numbered columns of electrodes, and then reversing the process to apply information signals to even-numbered columns of electrodes while applying cut-off signals to the odd-numbered columns of electrodes (see: e.g., Col. 5, line 65 through Col. 6, line 5). The Nakamura "cut-off" signals comprise non-information signals which are applied to non-selected columns (e.g., the even columns) so that the electrodes (e.g., the odd columns) which are receiving information signals "are not adversely affected by the voltage applied to the adjacent modulation electrodes (see: Col. 5, lines 41-50)." Clearly the non-information signals of Nakamura cannot be said to obviate the correction plus drive voltage signals which are being provided to all of the plurality of columns (or rows) under the present invention. Nakamura does not teach or suggest the provision of correction signals and information signals to conductors. In addition, Nakamura does not teach or suggest that all of the plurality of rows or all of the plurality of columns be provided with the same signals. Addition of the AAPA teachings of a magnetic matrix would not obviate the invention, since the AAPA also does not teach that correction plus drive voltage signals be provided to all of a the plurality of columns (or rows). Since all of the pending claims recite means for providing correction information, Applicants

respectfully assert that the claims are not rendered obvious by
the combination of the AAPA and the Nakamura patent teachings.

Applicants further note that the Nakamura teachings of
applying different signals to adjacent conductors (i.e.,
information signals to the even columns and cut-off signals to
the odd columns) would never motivate one skilled in the art to
provide multiple signals to a single column, let alone to provide
the same multiple signals to all of the conductors in adjacent
columns. In fact, Nakamura teaches away from such when it states
that alternate information and cut-off signals must be applied to
adjacent columns in order to avoid the adverse effects of having
voltages applied to adjacent conductors (Col. 5, lines 41-50).
Clearly, the Nakamura patent teachings cannot be said to obviate
the invention as claimed.

Further, Applicants note that to suggest that the current be
applied to all rows or columns of Nakamura would render the
Nakamura teachings unworkable, since applying the signals to all
neighboring rows would be inconsistent with the Nakamura
teachings of alternate application of voltage to reduce negative
effects created by neighboring lines being activated at the same
time. It is well established under U.S. Patent law that
modification of teachings cannot be considered obvious to one
having skill in the relevant art if such modification would
render the teachings unworkable for their intended purpose.
Clearly, therefore it cannot be maintained that the teachings of

the Nakamura patent would lead one having skill in the art to the present invention.

Moreover, Applicants respectfully assert that the Examiner acknowledged that the Nakamura patent teachings were insufficient to obviate the claim language in an earlier (March 7, 2001) Office Action in which the Examiner stated that "[a]s to claims 3 and 4-11, Nakamura et al. [does not teach]... a non-volatile memory and the screen having a phosphor coating facing the grid electrode means", whereupon the Examiner cited the Baldi patent teachings (which is discussed further below). Clearly, if Nakamura did not adequately provide teachings to obviate the invention in March of 2001, it does not provide adequate teachings now.

In rejecting Claims 2-11, the Examiner additionally cites the Buzak patent. The Buzak patent is directed to a flat panel display having columns electrodes on a first substrate which receive data drive signals and rows on a second substrate addressed by electron beams. The cited teachings of Buzak at Col. 12 teach that the system may have multiple output amplifiers with the one data driver. Applicants respectfully contend that having a single data driver with multiple output amplifiers does not obviate the claimed means for providing gain correction, since Buzak provides no teachings of providing gain correction-or any signal other than its drive voltage via its data driver 88.

Again the Examiner has cited the Baldi patent is rejecting Claims 3-11. Applicants again note that one having skill in the art would not be motivated to modify the AAPA, Nakamura and Buzak patents with the Baldi patent teachings. While the references are in the same field of technology, one would not take the Nakamura system, with its disclosure of alternate column signals which teaches away from providing the same signals to adjacent conductors, and modify it with the Baldi patent teachings wherein a single circuit may supply the same single signal to all columns.

The Baldi patent teaches several circuit arrangements for supplying a single signal to column conductors in a matrix. Each of the circuit arrangements provided by the Baldi patent has one or more correction circuits which take both the drive voltage and a correction signal and output a single signal to one or more columns. As with Nakamura, only one signal is being provided to any given column. Therefore, even if one were to modify the Nakamura patent teachings with those of Baldi, one would not arrive at the invention as claimed. If one were to combine the teachings of the Nakamura and Baldi patents, the resulting system would include (a) at least one correction circuit for receiving a drive signal plus a correction signal and for outputting a single combined signal (i.e., the information signal of Nakamura) to a first set of columns (e.g., the even columns) and (b) the cut-off signal circuitry of Nakamura for providing a cut-off signal to

the alternate set of columns (e.g., the odd columns). Clearly, therefore, even if one were motivated to combine the references, one would not arrive at the invention as set forth in the pending claims.

It is again noted that the Nakamura method is directed to alternately applying signals to the odd and even numbered columns. Clearly one would not be motivated by the Nakamura teachings to apply any signal to all of a plurality of columns or rows of conductors. To suggest that the current be applied to all rows or columns would render the Nakamura teachings unworkable, since applying the signals to all neighboring rows would be inconsistent with the Nakamura teaching of alternate application of voltage to reduce negative effects. Clearly the Nakamura reference does not include any suggestion of such application of information to all rows or all columns. Moreover, since to modify the Nakamura teachings to apply the information to all rows or all columns would make it unworkable for its intended purpose, such could not be considered obvious. It is well established under U.S. Patent Law that modification of teachings cannot be considered obvious to one having skill in the relevant art if such modification would render the teachings unworkable for their intended purpose. Clearly, therefore, it cannot be maintained that the teachings of the Nakamura reference, alone or in combination with the teachings of the Baldi patent, obviate the invention as claimed.

Finally, the Examiner additionally cites the Tanaka patent in rejecting Claims 9-11. The Tanaka patent is cited for suggesting that X and Y driver circuits be included in the AAPA-Nakamura-Buzak-Baldi combination. As above, it is not clear that any such combination is logical. Moreover, the Tanaka drivers would not render the present invention obvious since Tanaka is maintaining a constant differential voltage between its gate and cathode voltages (see: cited teachings at Col.3, lines 61-63). To maintain that constant differential teaches away from the claimed invention wherein cut-off, or cut-off and gain, correction information is supplied to address specific active array needs (e.g., to reduce luminance variations). Such dynamic correction is neither taught nor suggested by any of the cited patents.

Based on the foregoing request and remarks, Applicants request refund of the CPA filing fee, withdrawal of the rejections, and issuance of the claims.

Respectfully submitted,
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